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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,687	09/12/2003	Michael Verbanic	2003P12968US	7366

7590 05/06/2005

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,687	VERBANIC ET AL.	
	Examiner	Art Unit	
	Nguyen N. Hanh	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) *13-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-12 in the reply filed on 4/18/2005 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (US Patent No. 2,677,067).

Regarding claim 1, Johnson et al. disclose a spacer block (30 in Fig. 2) for positioning between a first and second high-voltage conductor in an electric machine (Col. 1, lines 10-45), said spacer block comprising: a main body (48 in Fig. 3) comprising a substantially rectangular block constructed of an insulating material (Col. 3, lines 1-7), said main body having a principal width W (44) for separating said first and second high-voltage electrical conductor (40 and 42) by a distance of substantially W (44); an exposed surface along said principal width of said main body, extending from

said first high-voltage conductor to said second high-voltage conductor; and a protruding portion (16) protruding from said main body and elongating said exposed surface to form a creepage path between said first and second high- voltage electrical conductor that is greater in length than said principal width W of said spacer block (Fig. 3).

Regarding claim 2, Johnson et al. also disclose a spacer block wherein said protruding portion protrudes substantially symmetrically from the middle of said principal width of said spacer block (Fig. 3).

Regarding claim 3, Johnson et al. also disclose a spacer block wherein said protruding portion comprises a substantially rectangular step-up region (at the top of 16 in Fig. 3).

Regarding claim 4, Johnson et al. also disclose a spacer block wherein said creepage path over said exposed surface comprises a path over a first substantially planar surface extending substantially perpendicularly from said first high-voltage conductor; a second substantially planar surface extending substantially perpendicularly from said first surface, a third substantially planar surface extending substantially perpendicularly from said second surface, a fourth substantially planar surface extending substantially perpendicularly from said third surface, and a fifth substantially planar surface extending substantially perpendicularly from said fourth surface (please compare Fig. 3 of Johnson et al. to Fig. 5B of the present invention).

Regarding claim 5, Johnson et al. also disclose a spacer block wherein said exposed surface includes corners and edges formed at intersections of said

substantially planar surfaces and wherein said corners and edges are rounded to improve the electrical performance of said spacer block (Fig. 2).

Regarding claim 6, Johnson et al. also disclose a spacer block wherein said exposed surface of said spacer block forms a creepage path approximately 5 times the principal width W of said spacer block (Fig. 3).

3. Claims 7-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al.

Regarding claim 7, Kobayashi et al. also disclose a support structure for supporting at least a first and second high-voltage conductor in an electric machine, said support structure comprising: a brace (21 in Fig. 14B) constructed of an electrical-insulation material (plastic) and configured to be rigidly mounted to said electric machine to mechanically support said first and second high-voltage conductor (22a and 22b), said brace having a support surface on which said first and second high-voltage conductor are positioned; and a spacer block having a principal width W (the space between 22a and 22b) and constructed of an electrical- insulation material, wherein said spacer block is configured to be mounted between said first and second high-voltage conductors for spacing said first and second high-voltage conductor apart by a distance of substantially W; wherein said spacer block includes a protruding portion (47) comprising a substantially rectangular protrusion protruding from said spacer block to form an elongated surface over said spacer block between said first and second high voltage conductor; and a creepage path formed over a substantially shortest path over said elongated surface from said first high-voltage conductor to said second high-

voltage conductor, said creepage path having a length L that is greater than the principal width W of said spacer block (Col. 7, lines 34-38).

Regarding claim 8, Kobayashi et al. also disclose the support structure wherein said protruding portion protrudes substantially symmetrically from the midpoint of said principal width of said spacer block.

Regarding claim 9, Kobayashi et al. also disclose the support structure wherein said protruding portion comprises a substantially rectangular step-up region (at the top of portion 47 as shown in Fig. 14B).

Regarding claim 12, Kobayashi et al. also disclose the support structure wherein said elongated surface of said spacer block forms a creepage path approximately 5 times the principal width W of said spacer block.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. in view of Johnson et al.

Regarding claim 10, Kobayashi et al. show all limitations of the claimed invention except showing the support structure wherein the creepage path over said exposed surface comprises a path over a first substantially planar surface extending substantially perpendicularly from said first high-voltage conductor; a second

substantially planar surface extending substantially perpendicularly from said first surface, a third substantially planar surface extending substantially perpendicularly from said second surface, a fourth substantially planar surface extending substantially perpendicularly from said third surface, and a fifth substantially planar surface extending substantially perpendicularly from said fourth surface.

However, Johnson et al. disclose a spacer block wherein said creepage path over said exposed surface comprises a path over a first substantially planar surface extending substantially perpendicularly from said first high-voltage conductor; a second substantially planar surface extending substantially perpendicularly from said first surface, a third substantially planar surface extending substantially perpendicularly from said second surface, a fourth substantially planar surface extending substantially perpendicularly from said third surface, and a fifth substantially planar surface extending substantially perpendicularly from said fourth surface (please compare Fig. 3 of Johnson et al. to Fig. 5B of the present invention) for the purpose of preventing electrical flashover (Col. 1, lines 10-15)

Since Kobayashi et al. and Johnson et al. are in the same field of endeavor, the purpose disclosed by Johnson et al. would have been recognized in the pertinent art of Kobayashi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Kobayashi et al. by forming a spacer block wherein said creepage path over said exposed surface comprises a path over a first substantially planar surface extending substantially perpendicularly from said first high-

voltage conductor; a second substantially planar surface extending substantially perpendicularly from said first surface, a third substantially planar surface extending substantially perpendicularly from said second surface, a fourth substantially planar surface extending substantially perpendicularly from said third surface, and a fifth substantially planar surface extending substantially perpendicularly from said fourth surface as taught by Johnson et al. for the purpose of preventing electrical flashover.

Regarding claim 11, Johnson et al. also disclose a spacer block wherein said elongated surface includes corners and edges formed at intersections of said substantially planar surfaces and wherein said corners and edges are rounded to improve the electrical performance of said spacer block (Fig. 2).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

April 28, 2005

DANG LE
PRIMARY EXAMINER